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CLAIMS

1. A recording method for recording data into an information recording medium, wherein the number of data rewrites into the same area is limited, the recording method comprising the steps of:

(a) performing a search for unallocated areas in an information recording area and retaining, in a memory, unallocated area identifying information for identifying at least one unallocated area found by the search;

(b) determining whether or not an unallocated area satisfying a record request is present among the at least one unallocated areas identified by the unallocated area identifying information; and

(c) when an unallocated area satisfying a record request is present among the at least one unallocated areas identified by the unallocated area identifying information, allocating the unallocated area as an area for recording data and recording data into the allocated area.

2. A recording method according to claim 1, further comprising the steps of:

(d) when an unallocated area satisfying a record request is not present among the at least one unallocated areas identified by the unallocated area identifying information, returning to step (a).

3. A recording method according to claim 1, further comprising the steps of:

(e) searching for a new file recorded in the information recording area; and

(f) generating a pointer indicating a position based on an end position of an area in which the new file is recorded,

wherein the search for unallocated areas in the information recording area in step (a) is performed in a fixed direction from a position following the position indicated by the pointer.

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4. A recording method according to claim 3, wherein the data is recorded into the information recording medium on an ECC block-by-ECC block basis, the ECC block comprises a plurality of sectors, and the search for unallocated areas in the information recording area is performed on an ECC block-by-ECC block basis.
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5. A recording method according to claim 3, wherein the pointer indicates an end position of an ECC block containing the end position of the area in which the new file is recorded.
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6. A recording method according to claim 3, wherein step (e) comprises searching files recorded in the information recording medium for a file having the newest file creation time or modification time as the new file.
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7. A recording method according to claim 3, wherein step (e) comprises searching files recorded in the information recording medium for a file having the largest ID number assigned to the file as the new file.
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8. A recording method according to claim 3, wherein step (e) comprises searching files recorded in a particular directory for a file most recently recorded in the information recording medium as the new file.
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9. A recording method according to claim 3, wherein step (e) comprises searching for an index file as the new file,

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wherein the index file is used to manage information about a list of files recorded in the information recording medium.

10. A recording method according to claim 9, further comprising the steps of:

(g) updating the index file when data recorded in the information recording medium is deleted or when the information recording medium is formatted; and

(h) recording the updated index file into the area allocated in step (c).

11. A recording method according to claim 1, further comprising the step of:

(i) generating a pointer indicating a random position in the information recording area,

wherein the search for unallocated areas in the information recording area in step (a) is performed from a position following the position indicated by the pointer in a fixed direction.

12. A recording method according to claim 1, wherein the search for unallocated areas in the information recording area in step (a) is performed from a start of the information recording area in a fixed direction.

13. A recording apparatus for recording data into an information recording medium, wherein the number of data rewrites into the same area is limited, the recording apparatus comprising:

a holding section for performing a search for unallocated areas in an information recording area and retaining, in a memory, unallocated area identifying information for identifying at least one unallocated area

found by the search;

5 a determining section for determining whether or not
an unallocated area satisfying a record request is present
among the at least one unallocated areas identified by the
unallocated area identifying information; and

10 a recording section for, when an unallocated area
satisfying a record request is present among the at least
one unallocated areas identified by the unallocated area
identifying information, allocating the unallocated area
as an area for recording data and recording data into the
allocated area.

14. A recording apparatus according to claim 13, wherein
15 when an unallocated area satisfying a record request is not
present among the at least one unallocated areas identified
by the unallocated area identifying information, the holding
section performs a search for unallocated areas in the
information recording area and retains, in the memory,
unallocated area identifying information for identifying
20 at least one unallocated area found by the search.